

ABSTRACT OF THE DISCLOSURE

A differential drive type semiconductor optical modulator according to the present invention includes: a differential driver circuit having output pads which can output a pair of differential signals; a transmission-line substrate having transmission lines connected to the output pads and ground lines; and semiconductor modulators mounted on the transmission-line substrate, being arranged in series along a common optic axis; wherein terminal resistors are connected to terminal ends of the transmission lines and inductances are interposed between the semiconductor modulators and the terminal resistors on the transmission-line substrate, thereby obtaining an appropriate optical modulation waveform with a high extinction ratio and remarkably enhance a frequency bandwidth of modulation.